

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Oh-Hun Kwon, et al.

Title: ESD DISSIPATIVE CERAMICS

Application No.: Divisional Application Filed: HEREWITH  
of U.S. Application No.  
09/988,894, filed 19  
November 2001.

Atty. Docket No.: 1035-PM4034-DIV

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MS PATENT APPLICATION  
COMMISSIONER FOR PATENTS  
PO Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT TRANSMITTAL**

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Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, the undersigned brings the patents, publications, applications or other information identified in the attached:

- ☒ Form(s) PTO/SB/08A and/or PTO/SB/08B  
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to the Examiner's attention in the above-identified application. Citation of such information shall not be construed as:

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If the above-identified application is an original application filed on or after May 29, 2000:

- ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement.

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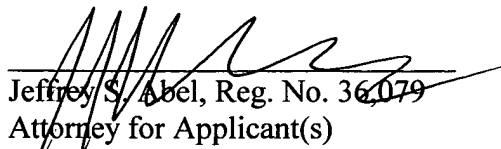
This Information Disclosure Statement is being filed:

- ☒ within three months of the filing date of a national application or within three months of entry of the national stage as set forth in § 1.491 in an international application. Therefore, no fee is required.
- ☐ before the mailing date of a first Office action on the merits or before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114. Therefore, no fee is believed required.
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Should any PTO fees be necessary for entry of this Information Disclosure Statement, the undersigned hereby authorizes the Commissioner to charge Deposit Account 50-2469.

Date 10/20/03

Respectfully submitted,

  
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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449A/PTO

Sheet 1 of 3  
(use as many sheets as necessary)

Complete if Known  
Applicant Number NEW APPLICATION  
Filing Date HEREWITH  
First Named Inventor Oh-Hun Kwon, et al.  
Group Art Unit  
Examiner Name  
Attorney Docket Number 1035-PM4034-DIV

## U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No.1	U.S. Patent Document Number Kind Code 2 (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	2,528,121	Dickinson	05/20/1948	
	AB	3,502,597	Bush	03/24/1970	
	AC	4,110,260	Yamamoto, et al.	08/29/1978	
	AD	4,316,964	Lange	02/23/1982	
	AE	4,931,214	Worrell, et al.	06/05/1990	
	AF	5,612,144	Aida, et al.	09/28/1999	
	AG	5,830,819	Shikata, et al.	11/03/1998	
	AH	5,958,813	Shinohara, et al.	03/18/1997	
	AI	6,136,232	Burlingame	10/24/2000	
	AJ	4,820,666	Hirano, et al.	04/11/1989	

## FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No.1	Foreign Patent Document Office 3 Number Kind Code 2 (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
	AK	JP 3-5363		01/11/1999		<input type="checkbox"/>
	AL	DE 3743630		03/16/1989		<input type="checkbox"/>
	AM	JP 62-025404	A	08/12/1994		<input type="checkbox"/>
	AN	JP 8-039441	Hideharu Hasegawa	02/13/1996		<input type="checkbox"/>
	AO	JP 10-296646	Hiroshi Hamashima	11/10/1998		<input type="checkbox"/>

## PUBLICATIONS

Examiner Initials *	Cite No.1	Title of Publication	Date of Publication of Cited Document MM-DD-YYYY
	AW	A.J. Wallash, "Electrostatic Discharge (ESD) in Magnetic Recording: Past, Present and Future," Proc. of Understanding ESD in Magnetic Recording, IDEMA, pp. 3-20, 2000.	
	AX	A.J. Wallash, et al., "ESD Failure Mechanisms of Inductive and Magnetoiresistive Recording Heads," EOD/ESD Symposium 95, pp. 322-330 (1995).	
	AY	J. Elston, et al., "Study of High-temperature Electrical Properties of Zirconia and Lanthanum Chromite Sinsters," Proceedings of a Symposium on Magnetohydrodynamic Electrical Power Generation, P. 1061, 389-403, 1966.	
	AZ	C. Lam, "Characterization of ESD Tweezers for Use with Magnetoiresistive Recording Heads," EOS/ESD Symposium -1996, pp. 14-21 (1996)	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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	BA	3,410,728		Fullman, et al.	06/10/1965	
	BB	6,274,524		Mikaki, et al.	08/14/2001	
	BC	6,069,103		Kwon, et al.	05/30/2000	
	BD	6,379,529		Wahl, et al.	04-2002	
	BE	6,258,233		Sugiyama, et al.	07-2001	
	BF	6,232,004		Lasater	05-2001	
	BG	6,039,221		Chatterjee, et al.	03-2000	
	BH	5,800,934		Quadri, et al.	09-1998	
	BI	5,175,132		Ketcham, et al.	12-1992	
	BJ	4,035,191		Johns	07/1977	

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	BK	WO	98/49121		Shunji Mikaki	11/05/1998		<input type="checkbox"/>
	BL							<input type="checkbox"/>
	BM							<input type="checkbox"/>
	BN							<input type="checkbox"/>
	BO							<input type="checkbox"/>

## PUBLICATIONS

Examiner Initials *	Cite No.1	Title of Publication	Date of Publication of Cited Document MM-DD-YYYY
	BW	K.J. Kim, et al., "Advancements in Inherently Dissipative Polymer (IDP) Alloys Provide New Levels of Clean, Consistent ESD Protection," EOS/ESD Symposium 2000, pp. 132-38, 2000.	
	BX	R.V. Wilhelm, D.S. Howarth, "Iron Oxide-doped Ytria-Stabilized zirconia Ceramic: Iron Solubility and Electrical Conductivity," Am. Ceram. Soc. Bull., 58 (2) 228-32 (1979).	
	BY	N.A. Pratten, "Review, The Precise Measurement of the Density of Small Samples, : J. Mater. Sci., 16, 1737-47 (1981).	
	BZ	ASTM: D257-93, "Standard Test Methods for DC Resistance or Conductance of Insulating Materials:, pp. 108-124.	

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Attorney Docket Number 1035-PM4034-DIV

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	AAA	FED. Test Method Std. No. 101, "Electrostatic Properties of Materials," Rev. B, Method 4046, Jan. 1969; Rev. C, Method 4046.1, Oct. 1982, Change Notice 1.	
	AAB	N. Jonassen, "Static-Electric Characterization of Semi-insulating Materials," EOS/ESD Symposium EOS-6, pp. 45-49, 1984.	
	AAC	G. Baumgartner, "Electrostatic Decay Measurement, Theory and Applications," EOS/ESD Symposium 95, pp. 262-72, 1995.	
	AAD	C.F.Lam, et al., "Decay-Time Characterization of ESD Materials for Use with Magnetoresistive Recording Heads," EOS/ESD Symposium 97, pp. 373-81, 1997.	
	AAE	M.J. DeBarr, et al., "Conduction Mechanism in the La(Al,Mn) <sub>3</sub> System," Point Defects and Related Properties of Ceramics, ED. T.O. Mason, et al., Ceramic Trans., Vol. 24, am. Ceram. Soc., pp. 229-238, 1991.	
	AAF	M.S. Islam, et al., "Defect Chemistry of LaBO <sub>3</sub> (B= La, Mn or Co) Perovskite-type Oxides," J. Chem. Soc., Faraday trans, 92930 479-482 (1996).	
	AAG		
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